

### **IN THE SPECIFICATION**

Please amend the specification as follows.

**Amend the paragraph beginning at page 2, line 24 as follows:**

To achieve these objectives, the most preferred embodiment of this invention is an automated flinch-detection apparatus for measuring spatial displacement of an animal's paw injected with irritant. This apparatus comprises an electromagnetic detecting assembly having (1) a transmitting ~~oscillator~~ oscillator for generating electrical current (2) an electromagnetic transmitter coil coupled to the ~~oscillator~~ oscillator for generating an electromagnetic field (3) an electromagnetic receiving coil placed in axial plane directly below the transmitter coil (4) a first, receiving amplifier connected to the receiving coil (5) an amplitude detector connected to the receiving amplifier (6) a second amplifier connected to the amplitude detector (7) a metal object attached to the animal's paw (8) and a cylindrical observation chamber of a diameter not greater than the diameter of the generated magnetic field.

**Amend the paragraph beginning at page 3, line 10 as follows:**

The chamber is placed directly over the receiving/transmitting coil assembly, wherein the current generated by the transmitting ~~oscillator~~ oscillator circulates in the transmitter coil, creating an electromagnetic field that penetrates the metal object, creating eddy currents perturbing the electromagnetic field. The fluctuating perturbations are picked up by the receiving coil, amplified by the receiving amplifiers detected by the amplitude detector and further amplified, filtered and digitized.

**Amend the paragraph beginning at page 4, line 4 as follows:**

Another most preferred embodiment contemplated is a method for measuring a flinch response by an animal whose paw has been subjected to an irritant. This embodiment comprises attaching a metal object to the animal's paw and placing the animal in an observation chamber, as described above, situated directly over a detection assembly having a transmitting ~~oscillator~~ oscillator for generating electrical current and an electromagnetic transmitter coil coupled to the

~~oecillator~~ oscillator for generating an electromagnetic field. An electrical current is thus generated and received by an electromagnetic receiving coil, which is connected to a receiving amplifier that amplifies the received generated electrical current. An amplitude detector receives the amplified electrical current, which, in turn, is amplified by a second amplifier.

**Amend the paragraph beginning at page 4, line 14 as follows:**

Thus, the current generated by the transmitting ~~oecillator~~ oscillator circulates in the transmitter coil, creating an electromagnetic field that penetrates the metal object attached to the animal's paw, creating fluctuating eddy currents perturbing the electromagnetic field. The fluctuating perturbations are picked up by the receiving coil, amplified by the receiving amplifier, and detected by the amplitude detector. The perturbations are further amplified, filtered and digitized to produce a measured response to the applied irritant.